MODIS sensor Working Group (MsWG) Meeting Summary Apr. 22, 2009

Attendance: Gary Toller, Bill Barnes, Aisheng Wu, Junqiang Sun, Gene Eplee, Brian Wenny, James Kuyper, Ben Ripman, Eric Vermote, Hongda Chen, Jack Xiong

Scheduled Agenda

Item 1: Recent L1B LUT delivery

- Aqua forward update – 5.0.35.11 (04/09/09) – m1, RVS
- Terra forward update – 5.0.40.22 (04/17/09) – m1, RVS, a0, a2, B21_b1

Item 2: Instrument status

- Terra and Aqua MODIS are in nominal operations.
- The series of Aqua Inclination Adjustment Maneuvers are nearing completion. IAMs #16 through #22 were successfully completed on 2009/069, 2009/071, 2009/077, 2009/090, 2009/092, 2009/098 and 2009/111. An additional 2 IAMs are scheduled: April 23 (~15:15-16:01) & 29 (~14:38-15:25).

Item 3: MCST recent activities

- Terra Band 7 Detector striping follow-up
  - In response to user inquiry (see 04/08/09 MsWG) MCST investigated the striping seen in Terra Band 7 [Detectors 3, 9 & 16 (product order)]. A strategy to apply a scaling factor to the m1 coefficient for these detectors was considered and may yield improvement in removing the striping for typical EV radiance levels. More investigation is needed.
- Collection 6 Status update: No schedule announced yet for start time for v6 science testing. MCST is planning to deliver an updated set of v6 LUTs (QA, TEB, RSB) at the request of the Ocean Group for testing. Aqua is to be delivered next week and Terra the following week.
- Fire Product Anomaly
  - The Fire Product group raised a question with MCST regarding spurious swath-wide 'fires' that can appear prior to the monthly roll maneuvers. Investigation showed that this occurs in both Terra and Aqua but not in every lunar event. The issue is caused by the timing of the instrument command to perform the sector rotation and the recording of the telemetry point that reports the angle of sector rotation. This telemetry point is sampled at a frequency of 8 sec. Scans between samples are written with a copy of the last reported value. The result being that a situation can occur in which scans which contain sector rotated data have a telemetry value indicating no sector rotation. In these cases the scans are considered valid by L1B and pass through the calibration – reporting extremely high radiances. Operationally the TEB calibration uses a 40 scan average coefficient, so the 20 scans (one mirror side) prior to the sector rotation are contaminated with anomalously high radiance values. All TEB (except band 21) are affected.
  - An L1B code change (for v6) is proposed to fix this issue. Brian and James will discuss details to find the best solution and implementation strategy.

Item 4: Around the Table

- None

Next Meeting: ~May 6, 2009

Compiled by B. Wenny